

REMARKS

This Amendment responds to the Office Action dated February 15, 2005 in which the Examiner provisionally rejected claims 1, 2, 4-14, 19-21 and 23-27 under the judicially created doctrine of obviousness-type double patenting, rejected claims 3, 10, 13-15, 18-20, 22 and 28 under 35, U.S.C. §112, second paragraph, rejected claims 1-5, 12, 14-15, 17-18, 20-24 and 28-30 under 35 U.S.C. §103 and objected to claims 6-11, 13, 16, 19 and 25-27 as being dependent upon a rejected base claim but would be allowable is rewritten in independent form.

Applicants respectfully traverse the Examiner's provisional rejection of claims 1, 2, 4-14, 19-21 and 23-27 under the judicially created doctrine of obviousness-type double patenting over Application Serial No. 10/607,994. As indicated above, the claims of the present application have been amended to recite additional features not claimed in the copending application. Therefore, Applicants respectfully request that Examiner withdraws the rejection to the claims under the judicially created doctrine of obviousness-type double patenting.

As indicated above, claims 3, 10, 13-15, 18-19, 22, 27 and 28 have been amended to more particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. Applicants respectfully point out that the amendments broaden the claims. Additionally, Applicants respectfully point out that claim 20 was incorrectly rejected and Applicants believe that claim 27 was meant instead. Therefore, Applicants respectfully request the Examiner withdraws the rejection to the claims under 35 U.S.C § 112, second paragraph.

As indicated above, claims 1 and 20 have been amended to make explicit what is implicit in the claim. The amendment is unrelated to a statutory requirement for patentability.

Claim 1 claims a radiation therapy device, and claim 20 claims a method of changing the spatial dose distribution of a radiation therapy device. The method and device include a source carrier arrangement and a collimator body. The source carrier surrounds the collimator body and is arranged to allow for a subset of sources to be displaced relatively to the inlets of the collimator passages of the collimator body while the rest of the sources are fixed relative to the inlets.

Through the structure of the claimed invention having a source carrier arrangement surround the collimator body and displaces a subset of sources relative to the inlets while the rest of the sources are fixed relative to the inlets as claimed in claims 1 and 20, the claimed invention provides a radiation therapy device and method thereof which allows a variety of different dose gradients to apply. The prior art does not show, teach or suggest the invention as claimed in claims 1 and 20.

Claims 1-5, 12, 14-15, 17-18, 20-24 and 28-30 were rejected under 35 U.S.C. § 103 as being unpatentable over *Krispel et al.* (U.S. Patent No. 6,512,813).

Krispel et al. appears to disclose field of stereotactic radio surgery and particularly relates to a system for this purpose using a rotating array of radiation sources. (col. 1, lines 8-10) Turning on to Fig. 1a there is shown a system 10 comprising a radiation shield 20 with supporting structures 22. At least one source array carrier 24 is supported for rotation about axis 28. A patient treatment table 12 is provided to support a patient treated by irradiation from the asymmetrical source array carrier 24 in combination with collimator 30. The source array is characterized

by a number of bores in a carrier body which are directed toward a common intersection. A bore is intended to house a radiation source in use and to define a radiation channel for its gross direction of the radiation flux from that source. Co⁶⁰ is a typical choice for the radiation source. The asymmetrical source array 24 subtends an angular interval, or sector, in the range of 20° to 60° in the plane of rotation. A beam catcher/counterweight 32 is disposed diametrically opposite the source carrier 24. (col. 3, lines 31-54) Sources are exclusively disposed in a limited angular section of source carrier 24 for rotation about axis 28. (col. 4, lines 6-7) The collimator 30 preferably has the structure as shown in Fig. 4a wherein the collimator 30 is an assembly of partial collimator rings 30a, 30b, 30c, 30d, etc. Each of these partial collimators corresponds to a source sub-array 24a, 24b, 24c, 24d. Moreover, each partial collimator is characterized by a plurality of sets of apertures 31i, 31j, etc wherein alignment of a set of apertures 31ai with corresponding sub-array 24a produces a set of defined radiation beams which intersect at the predesignated focal locus 26. (col. 4, lines 12-19)

Thus, *Krispel et al.* merely discloses a source carrier 24 disposed in a limited angular sector and a collimator 30 having a plurality of rings. Nothing in *Krispel et al.* shows, teaches or suggests that the source carrier arrangement surrounds the collimator body as claimed in claims 1 and 20. Rather, *Krispel et al.* clearly teaches away from the claimed invention since the source carrier body from the source array carrier 24 is adjacently disposed from the collimator 30.

Since nothing in *Krispel et al.* shows, teaches or suggests a source carrier arrangement surrounding a collimator body as claimed in claims 1 and 20,

Applicants respectfully request the Examiner withdraws the rejection to claims 1 and 20 under 35 U.S.C § 103.

Claims 2-5, 12, 14-15, 17-18, 21-24 and 28-30 depend from claims 1 and 20 and recited additional features. Applicants respectfully submit that claims 2-5, 12, 14-15, 17-18, 21-24 and 28-30 would not have been obvious within the meaning of 35 U.S.C § 103 over *Krispel et al.* at least for the reasons as set forth above.

Therefore, Applicants respectfully request the Examiner withdraws the rejections to claims 2-5, 12, 14-15, 17-18, 21-24 and 28-30 under 35 U.S.C § 103.

Since objected to claims 6-11, 13, 16, 19 and 25-27 depend from allowable claims, Applicants respectfully request the Examiner withdraws the objection thereto.

The prior art of record, which is not relied upon, is acknowledged. The references taken singularly or in combination do not anticipate or make obvious the claimed invention.

Thus, it now appears that the application is in condition for reconsideration and allowance. Reconsideration and allowance at an early date are respectfully requested.

If for any reason the Examiner feels that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed within the currently set shortened statutory period, Applicants respectfully petition for an appropriate extension of time. The fees for such extension of time may be charged to our Deposit Account No. 02-4800.

In the event that any additional fees are due with this paper, please charge
our Deposit Account No. 02-4800.

Respectfully submitted,

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